

DT05 Rec'd OCT/PTO 09 FEB 2005

20

We claim:

1. A process for producing low-emission flexible polyurethane
5 foams by reacting

a) polyisocyanates with

- b) compounds having at least two hydrogen atoms which are
10 reactive toward isocyanate groups,

wherein polyether alcohols which have been prepared by
addition of alkylene oxides onto compounds derived from
renewable raw materials selected from the group consisting of
15 castor oil, polyhydroxy fatty acids, ricinoleic acid,
hydroxyl-modified oils such as grapeseed oil, black caraway
oil, pumpkin seed oil, borage seed oil, soybean oil, wheat
germ oil, rapeseed oil, sunflower oil, peanut oil, apricot
kernel oil, pistachio nut oil, almond oil, olive oil,
20 macadamia nut oil, avocado oil, sea buckthorn oil, sesame
oil, hemp oil, hazelnut oil, evening primrose oil, wild rose
oil, hemp oil, safflower oil, walnut oil and also
hydroxyl-modified fatty acids and fatty acid esters based on
myristoleic acid, palmitoleic acid, oleic acid, vaccenic
25 acid, petroselinic acid, gadoleic acid, erucic acid, nervonic
acid, linoleic acid, α - and γ -linolenic acid, stearidonic
acid, arachidonic acid, timnodonic acid, clupanodonic acid
and cervonic acid using DMC catalysts are used as compounds
b).

30

2. A process as claimed in claim 1, wherein the polyether
alcohols b) prepared by addition of alkylene oxides onto
compounds derived from renewable raw materials using DMC
catalysts have a mean molecular weight M_w in the range from
35 400 to 20 000 g/mol.

3. A process as claimed in claim 1, wherein the polyether
alcohols prepared by addition of alkylene oxides onto
compounds derived from renewable raw materials using DMC
40 catalysts have a mean molecular weight in the range from 1000
to 8000 g/mol.

4. A process as claimed in claim 1, wherein the polyether
alcohols prepared by addition of alkylene oxides onto
45 compounds derived from renewable raw materials using DMC

catalysts have a content of cyclic fatty acid esters of not more than 50 ppm.

5. A process as claimed in claim 1, wherein the polyether alcohols prepared by addition of alkylene oxides onto compounds derived from renewable raw materials using DMC catalysts have a content of cyclic fatty acid esters of not more than 10 ppm.
6. A process as claimed in claim 1, wherein the compressive set of flexible polyurethane slabstock foams is not more than 7%.
7. A process as claimed in claim 1, wherein the compressive set of flexible polyurethane slabstock foams after aging in accordance with DIN EN ISO 2440 is not more than 10%.
8. A low-emission flexible polyurethane slabstock foam which can be produced as claimed in any of claims 1 to 7.
9. The use of a flexible polyurethane foam as claimed in claim 8 in motor vehicle interiors.
10. The use of a flexible polyurethane foam as claimed in claim 8 in furniture and mattresses.
11. The use of polyether alcohols which have been prepared by addition of alkylene oxides onto compounds derived from renewable raw materials using DMC catalysts for producing flexible polyurethane foams having reduced crack formation.
12. The use of polyether alcohols which have been prepared by addition of alkylene oxides onto compounds derived from renewable raw materials selected from the group consisting of castor oil, polyhydroxy fatty acids, ricinoleic acid, hydroxyl-modified oils such as grapeseed oil, black caraway oil, pumpkin seed oil, borage seed oil, soybean oil, wheat germ oil, rapeseed oil, sunflower oil, peanut oil, apricot kernel oil, pistachio nut oil, almond oil, olive oil, macadamia nut oil, avocado oil, sea buckthorn oil, sesame oil, hemp oil, hazelnut oil, evening primrose oil, wild rose oil, hemp oil, safflower oil, walnut oil and also hydroxyl-modified fatty acids and fatty acid esters based on myristoleic acid, palmitoleic acid, oleic acid, vaccenic acid, petroselinic acid, gadoleic acid, erucic acid, nervonic acid, linoleic acid, α - and γ -linolenic acid, stearidonic acid, arachidonic acid, timnodonic acid, clupanodonic acid

21a

and cervonic acid using DMC catalysts for producing low-emission flexible polyurethane foams having reduced odor and a reduced fogging value.

5

10

15

20

25

30

35

40

45